

Appl. No. : 09/965,054
Filed : September 26, 2001

REMARKS

Claim 5 has been amended to clarify the invention. Support for the amendments to Claim 5 can be found particularly in Figs. 8, 11, and 12 (arrows X and Y), for example. Claims 17-21 have been added. Claim 17 is an independent claim which incorporates the new limitation "each parallel line positioned consecutively being formed consecutively" with regard to recitations of the previous Claim 5. Support for the limitation of Claim 17 can be found in Figs. 3 and 6, for example. Support for Claims 18-22 can be found in the existing claims. Claims 7 and 8 have been withdrawn from further consideration. However, Applicant respectfully requests rejoining these claims if the generic claim, Claim 5, is held allowed. Accordingly, Claims 5-8 and 16-22 are pending in this application. The amendments do not constitute the addition of new matter in the specification. Applicant respectfully requests entry of the amendments and reconsideration of the application in view of the amendments and the following remarks.

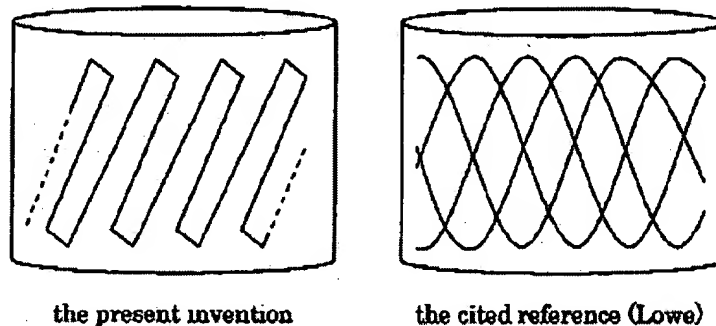
Rejection of Claims 5, 6 and 16 Under 35 U.S.C. § 102

Claims 5, 6 and 16 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Lowe (3,002,874) or, alternatively, Mitchell (3,063,491) or Frisby (3,183,134). Claim 5 has been amended for clarification. Claim 6 and 16 are dependent on Claim 5. The claims as amended herein could not be anticipated by the prior art as explained below.

Claim 5 as amended herein recites i) reciprocating the supply head along a widthwise direction of the carcass ply, ii) reciprocating the sticking surface of the sticking body along a longitudinal direction of the carcass ply with a forward movement at a pitch to arrange the at least one ply cord in substantially parallel lines on the sticking surface, wherein one widthwise reciprocating motion of the supply head occurs while one longitudinal reciprocating motion of the sticking surface occurs, and iii) controlling a disposition angle of the ply cord with respect to the longitudinal direction by changing a moving amount of the sticking surface with respect to a moving amount of the supply head.

In the present invention, not only the supply head but also the sticking surface have a reciprocating movement, and one widthwise reciprocating motion of the supply head occurs while one longitudinal reciprocating motion of the sticking surface occurs, and thus, at least one ply cord can be arranged in substantially parallel lines on the sticking surface as shown in Figures 3 and 6, and the disposition angle can be changed as shown in Figure 7.

In contrast, in Lowe, the former 4 and the guide pulley 32 are mechanically connected to each other and move at a fixed ratio, and the former cannot move backward. For example, the former 4 will rotate somewhat more than once when the guide pulley 32 performs reciprocating movements for three times (col. 5, lines 17-29). In Lowe, ply cords are supplied cycle by cycle while continuously rotating the drum in the same direction, thereby forming a sine curve pattern as illustrated below.



In Lowe, because only a sine curve pattern can be formed, deposition must be repeated. Lowe clearly fails to disclose or even suggest and it is impossible for Lowe to perform the significant feature of Claim 5, i.e., “one widthwise reciprocating motion of the supply head occurs while one longitudinal reciprocating motion of the sticking surface occurs.” In the present invention, as shown above, at least one ply cord can consecutively be arranged in substantially parallel lines on the sticking surface. The present invention could not be anticipated by Lowe.

Further, neither Mitchell nor Frisby teaches the above features. In Mitchell, the motor 12 rotates both shaft 3 and shaft 24 (column 3, lines 1-5), and the former 2 cannot move backward independently of the roller 27. In Frisby, the tire mold 1 cannot move reciprocally, and it is impossible to form a pattern shown in Figures 3, 6, and especially 7 of the present invention. The present invention could not be anticipated by these references.

Withdrawal of the rejection under 35 U.S.C. § 102(b) is respectfully requested.

New Claims 17-22

Claim 17 recites i) reciprocating the supply head along a widthwise direction of the carcass ply, ii) reciprocating the sticking surface of the sticking body along a longitudinal direction of the carcass ply with a forward movement at a pitch to arrange the at least one ply

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cord in substantially parallel lines on the sticking surface, each parallel line positioned consecutively being formed consecutively, and iii) controlling a disposition angle of the ply cord with respect to the longitudinal direction by changing a moving amount of the sticking surface with respect to a moving amount of the supply head. In the present invention, not only the supply head but also the sticking surface have a reciprocating movement, and each parallel line placed consecutively is formed consecutively, and thus, at least one ply cord can be arranged in substantially parallel lines on the sticking surface as shown in Figures 3 and 6, and the disposition angle can be changed as shown in Figure 7.

None of the references discloses the significant feature of Claim 17, i.e., "each parallel line positioned consecutively being formed consecutively." The invention recited in Claim 17 could not be anticipated by these references.

Claims 18-22 are dependent on Claim 17 and further distinguishes the invention. As with Claim 17, Claims 18-22 also could not be anticipated by the references.

CONCLUSION

In view of the foregoing Remarks, it is respectfully submitted that the present application is in condition for allowance. Should the Examiner have any remaining concerns which might prevent the prompt allowance of the application, the Examiner is respectfully invited to contact the undersigned at the telephone number appearing below.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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